



Pearl Air Handling Unit Model LPCP

For Wide Range Of
Commercial Application

1,000-25,000 cfm (0.5-11.8 m³/s)
33-1,000 MBH (10-293 kw)



CFH-SB-5T





Feature and Benefit

Economical design to suite for commercial application

The fully assembled LPCP air handler offers a large selection of configuration to meet a wide range of cooling and ventilating requirements. LPCP is ideally suite for stores, office buildings, schools or other commercial establishments.

High efficiency performance

Trane engineered fan and heat transfer system provides maximum cooling and airflow while minimizing vibration, acoustic level and power consumption.

Complete product selection program

LPCP is furnished with complete product selection program to ease the product selection process and also generates performance data in professional format for project submission.

Minimum installation cost

The modular casing concept creates an easy way for installation, which will help to minimize field labor cost.

Suitable for retrofit, renovation and replacement

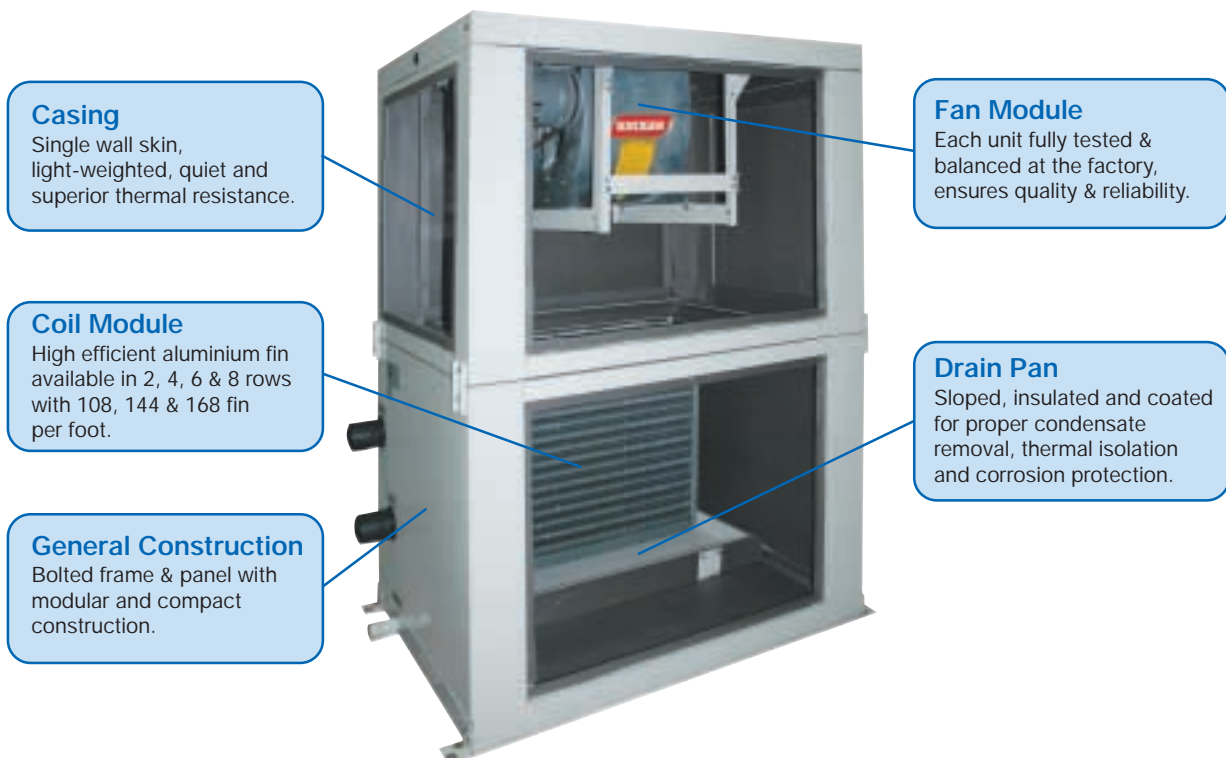
LPCP is designed to have compact casing to suite the need for retrofit, renovation and replacement market. Small footprint also ensures economical use of building space.

Excellent condensate management

Sloping drainpan allows for total condensate removal. A unique feature developed to prevent stagnant water in air handling unit.

Sturdy construction

LPCP is sturdily constructed based on a specially designed rigid frame and reinforcement. This means modules can be stacked in a vertical air handler configuration, but also allows removal of panel for unlimited access.



LPCP Quick Select Guide

The LPCP air handling unit is easy to select by using quick selection guide table below.

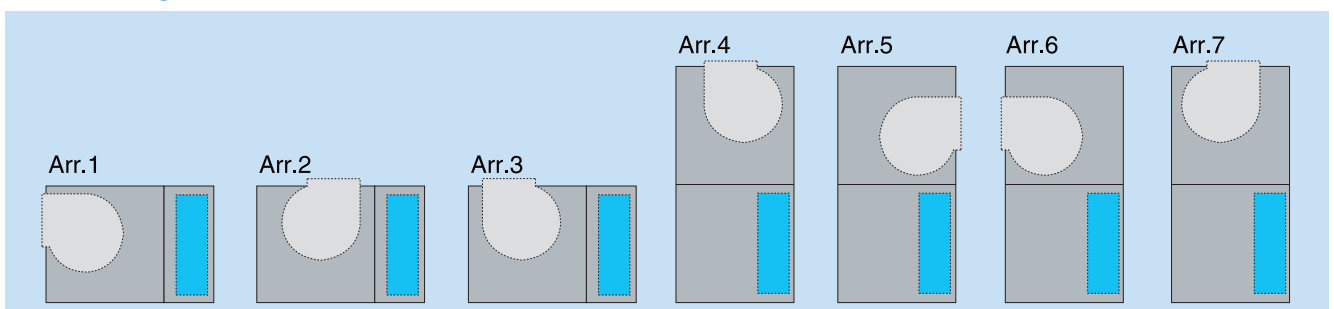
LPCP QUICK SELECTION GUIDE

Unit Model	Coil Face Area	Air flow at 500 fpm	Total Cooling Capacity		External Static Pressure	Dimension				Shipping Weight	Water Pressure Drop	Water Flow Rate
						Unit	L	W	H			
Unit Size	ft ²	cfm	MBH	Tons	in.wg.	Arr.	mm	mm	mm	Kg	ft.wg.	GPM
LPCP02	2.08	1,040	33.3	2.8	1.2	HDT VDT	866 508	870	508 1016	133 137	1.2	6.6
LPCP03	3.00	1,500	47.1	3.9	1.2	HDT VDT	1031 674	810	673 1348	136 171	0.8	9.4
LPCP04	4.00	2,000	66.1	5.5	1.2	HDT VDT	1031 674	990	673 1348	185 192	2.1	13.2
LPCP06	5.99	2,995	102.2	8.5	1.2	HDT VDT	1133 774	1135	775 1548	253 269	3.7	20.4
LPCP08	8.00	4,000	106.4	8.9	1.2	HDT VDT	1133 774	1430	775 1548	311 335	1.4	21.3
LPCP10	10.00	5,000	138.3	11.5	1.2	HDT VDT	1220 720	1500	963 1924	372 412	1.5	27.7
LPCP12	11.67	5,835	162.5	13.5	1.2	HDT VDT	1220 720	1500	1095 2190	449 486	1.5	32.5
LPCP14	13.61	6,805	205.5	17.1	1.2	HDT VDT	1220 720	1700	1095 2280	487 526	2.5	41.1
LPCP17	16.53	8,265	267.5	22.3	1.2	HDT VDT	1300 800	2007	1140 2280	577 627	4.6	53.5
LPCP21	20.42	10,210	348.0	29.0	2.0	HDT VDT	1300 800	2413	1140 2280	672 722	8.5	69.6
LPCP25	25.00	12,500	440.9	36.7	2.0	HDT VDT	1549 850	2770	1130 2260	834 895	12.3	88.2
LPCP31	30.00	15,000	521.6	43.5	2.0	HDT VDT	1580 880	2770	1350 2700	1016 1030	11.5	104.3
LPCP35	35.00	17,500	610.5	50.9	2.0	HDT VDT	1700 1000	2770	1514 2845	1119 1182	11.8	122.1
LPCP40	40.00	20,000	701.3	58.4	2.0	HDT VDT	1700 1000	2770	1704 3034	1220 1284	12.9	140.3
LPCP45	45.40	22,500	829.6	69.1	2.0	HDT VDT	2500 -	2770	2047 -	1600 -	21.0	165.9
LPCP50	50.40	25,000	887.7	74.0	2.0	HDT VDT	2500 -	2770	2207 -	1727 -	12.5	177.5

NOTE:

- Above cooling capacities based on standard air flow rate and following conditions:
Chilled water temperature: Entering 45°F and Leaving 55°F.
Entering air condition: 80°FDB / 67°FWB.
- Above unit weight shall include forward curved fan section, 4 row 144 fin/foot cooling coil section (1/2" copper tube/aluminium fin), flat filter section (include media).
- LPCP02-06 are based on coils with turbulators.

Fan Arrangement



Mechanical Specifications

Casing Construction

LPCP product line consists of horizontal and vertical configuration. Both configurations have the option of either horizontal or vertical discharge. All sections are insulated with Polyethylene foam insulation. Access panels are available on both sides of casing for fan and mixing box section (optional).

Fan Module

The vibration levels of the complete fan assembly (fan wheel, motor and drives assembled as a whole system) shall be checked and dynamically balanced in the factory as per ISO 1940.

Fan shall be double-width, double-inlet, and multiblade type. Fan shall be forward curved (FC) as required for stable operation, low noise and optimum energy efficiency. Fan shall be equipped with bearings with an L-50 life (average life) of 200,000 hours. The fans shall be designed in accordance to AMCA standard.

Motor shall be TEFC (Totally Enclosed Fan Cooled), 3-phase induction motor, 50 or 60 Hz, IP55 and class F insulation. Motor shall be mounted integral to a fan assembly furnished by the unit manufacturer. Motor shall be mounted inside the unit casing on a slide base to permit adjustment of drive belt tension.

Coil Module

All coils are highly efficient aluminum fins, which are mechanically bonded to 1/2 inch seamless copper tubing. Capacity, pressure drop and selection procedure shall be designed in accordance with ARI Standard 410. Coil casing shall be galvanized steel. Coils shall be leak tested at 380 psig. The header shall be constructed of round steel pipe with BSPT external threaded. All headers shall be fitted with air venting and water drainable plug.

Drainpan

Coil shall be provided with an insulated galvanized sloping drain pan to allow for proper condensate removal. The galvanized drain pan shall be light gray powder-painted for corrosion protection.

Filter

Filters are available with 2 inch aluminium washable filter.

Mixing Section (Option)

The mixing sections are constructed of heavy gauge galvanized steel with two opposed blade dampers. A drive shaft is provided on the damper that can be used with an actuator.

Options

Besides the optional mixing section, other options are also available as listed:

- Painted Casing
- Drip Eliminator
- Electric Heater
- Elastometric Close Cell Insulation
- Backward curved fan
- 2" Synthetic washable filter
- 2" Throwaway filter
- 15" or 21" Bag filter
- 4" or 12" Cartridge filter



Electric Heater



Drip Eliminator

Aluminium Filter

Synthetic Filter



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Trane has a policy of continuous product and product data improvement and reserves the right to change design and specifications without notice.